

Attorney Docket No.: J3646(C)  
Serial No.: 10/502,021  
Filed: July 20, 2004  
Confirmation No.: 8722

### **REMARKS**

Claim 1 has been amended to incorporate the requirements of claims 2 and 3. Additionally, claim 1 has been amended, consistent with claim 9, to specify that the composition is in the form of a hair treatment product; with this amendment the claim has been amended to delete reference to personal wash products and scalp products. Claims 2, 3, and 9 have been cancelled without prejudice.

Claims 1-15 and 18-21 stand rejected under 35 U.S.C. § 103(a) over Brown et al. (EP 0 355 980); additionally, claims 1-15 and 18-21 stand rejected under 35 U.S.C. § 103(a) over Tsaur et al. (US 5,726,138). A double patenting rejection has also been made against claims 1, 3, 5-7 and 19 over US 7,169,427 (the '427 patent) in view of Brown et al.

These rejections are respectfully traversed.

Brown et al. is directed to a composition in thickened fluid form that comprises (i) a first (shear gel) phase comprising at least one polymer which is capable of forming a gel, which polymer is present in the composition as a shear gel (i.e., a multiplicity of separate gel particles which have been formed by subjecting the polymer to shear while gel formation takes place); and (ii) a second (encapsulated) phase which is in the form of particles or droplets which comprise a hair benefit agent and are entrapped by the gel matrix of at least a proportion of the gel particles. The gel particles produced in the shear gel phase are disclosed as typically having an average size in the range of from 1 to 1000 microns, more preferably 5 microns to 100 microns, and most preferably 10 to 80 microns. From the micrographs provided

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in the Brown et al. patent, the shear gel particles do not appear to have the elongated structure required by the amended claims.

Particle structure can be affected by the process used to prepare the particles. See, Example 2, (comparative example) of the subject application, which discloses the production of gelled spheres from two biopolymers, and Example 1 which discloses the production of gelled fibers from 2 biopolymers. In addition to their physical differences, gelled fibers and gelled spheres can exhibit significant differences in performance.

Example 5 of the subject invention compares a suspension that contains gelled  $\kappa$ -carrageenan spheres to a suspension that contains gelled  $\kappa$ -carrageenan fibers in terms of substantivity to hair. Hair on one side of a mannequin head was treated with the suspension of gelled spheres and the hair on the other side of the mannequin head was treated with the suspension of gelled fibers. Both sides were rinsed with water. Micrographs obtained by scanning electron microscopy showed that the gelled fibers had entangled amongst the hair fibers, whereas the gelled spheres tended to be washed away. Thus, the gelled fibers showed greater substantivity to the hair. At pages 48-49, the subject application describes shampoo compositions containing SLES and CAPB surfactants together with particles of gelled fibers or gelled spheres and the results of testing of those compositions on hair switches. The shampoo composition containing the gelled fibers was generally assessed as being creamier than the composition containing the gelled spheres. Apart from containing gelled particles in fiber or sphere form, the compositions were otherwise identical. Together with Example 5, this data shows that particle form can affect composition properties.

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Tsaur et al. is directed to hydrogel dispersions/particles capable of trapping water insoluble beneficial agent, yet capable of disintegrating smoothly to impart desirable in-use characteristics. The hydrogels comprise (a) a first polymer which is "insolubilized" when placed in an aqueous solution as therein described and (b) a second property modifying polymer which ensures that the final hydrogel composition is not so strong that it will not disintegrate smoothly when the hydrogel is applied to a substrate, but has sufficient gel strength to retain the benefit agent during processing and storage. Exemplary of the first polymer are polymers that gel by thermal gellation, for example, gel forming polysaccharides such as carrageenans or agars, gelatins, thermally gelling synthetic polymers such as poly(N-isopropylacrylamide) homo or copolymers or polyacrylate or methacrylate containing polymers that incorporate as one of the monomer units an acrylic or methacrylic ester of a long chain and preferably linear alcohol; polymers that gel by precipitation or co-precipitation such as, for example, polyglucosamine, polyvinyl alcohol, and electrolyte sensitive polymers; and polymers that gel by cross-linking such as, for example  $\kappa$ -carrageenans. Exemplary of the second or property modifying polymers are, for example, carboxylic acid containing acrylic polymers such as alkali soluble polyacrylic latexes and cross-linked polyacrylic acids and copolymers; nonionic polymers such as polyvinyl alcohol, polyvinyl pyrrolidone, hydroxyethyl cellulose and hydroxypropyl methylcellulose; and cationic polymers such as modified polysaccharides including cationic guar, cationic modified cellulose, and synthetic cationic polymers.

The hydrogel of Tsaur et al. is described as having a particle size in the range of from about greater than 25 micrometers, preferably larger than 100 micrometers, more preferably greater than 200 micrometers up to about several centimeters. Tsaur et al. does not expressly disclose particles having the size distribution disclosed by amended claim 1. Moreover, the focus of Tsaur et al. is on the

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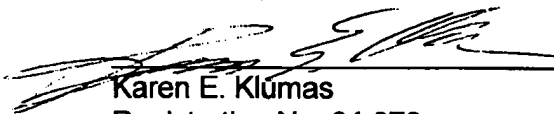
production of skin treatment compositions, not hair treatment compositions as in the subject claims.

As regards the double patenting rejection, it is respectfully submitted that the claims of the subject invention (drawn to hair treatment products that contain fiber-like gelled particles) are not obvious over the claims of the '427 patent (which say nothing about personal care compositions generally or hair care compositions particularly, and instead include claims to spreadable dairy products) in view of Brown et al., a patent which seemingly does not disclose gelled particles in the form of elongated fibers having the dimensional requirements of the '427 patent. Accordingly, this rejection is respectfully traversed.

In view of the foregoing comments and remarks, reconsideration and allowance of the subject claims is respectfully requested.

If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,



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